

WHAT IS CLAIMED IS:

1. A rotary tool comprising first and second tool holders together defining a center axis and being clamped together in an axial direction by a force-applying member, wherein the first tool body including an axially extending male part, and the second tool body including an axially extending female part in which the male part is received; and first and second guiding structures for guiding the first and second tool bodies relative to one another in the radial direction; the first guiding structure including radially outer interengaging guide surfaces disposed on the first and second tool bodies at a location adjacent outer circumferences thereof; the second guide structure including radially inner interengaging guide surfaces connected to the male and female parts, respectively.
2. The tool according to claim 1 wherein the radially outer interengaging guide surfaces comprise a generally axially extending ridge on one of the first and second tool bodies, and a groove disposed in the other of the first and second tool bodies and in which the ridge is disposed.
3. The tool according to claim 2 wherein the ridge and the groove are complementarily arch-shaped.
4. The tool according to claim 3 wherein the first and second tool bodies include first and second end surfaces facing each other in the axial direction and disposed in non-contacting relationship, the ridge disposed on one of the end surfaces, and the groove disposed in the other end surface.
5. the tool according to claim 2 wherein the ridge is curved and has a first radius of curvature, and the groove is curved and has a second radius of curvature larger than the first radius of curvature.

6. The tool according to claim 2 wherein the radially inner interengaging surfaces are of complementary shape.

7. The tool according to claim 2 wherein the radially inner interengaging surfaces comprise a cylindrical projection and a cylindrical recess receiving the projection, the projection and the recess defining a center axis coinciding with the center axis of the tool.

8. The tool according to claim 1 wherein the radially inner interengaging surfaces comprise a cylindrical projection and a cylindrical recess receiving the projection, the projection and the recess defining a center axis coinciding with the center axis of the tool.

9. The tool according to claim 1 wherein the male and female parts have a generally triangular cross section.

10. The tool according to claim 9 wherein the male part has three side surfaces, each comprising a portion of convex shape as viewed in the direction of the axis.

11. The tool according to claim 1 wherein the male and female parts are configured to provide radial play between one another.

12. The tool according to claim 1 wherein the force-applying member comprises a screw extending along the axis.

20 13. The tool according to claim 12 wherein the screw includes a shank having a chamber extending along an entire length thereof.

14. The tool according to claim 1 wherein one of the first and second tool bodies constitutes a tool head.